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Institute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 1

of 8

**Complete if Known**

Application Number	10/765,223
Filing Date	01/26/2004
First Named Inventor	Smith et al
Art Unit	1756
Examiner Name	C. Young
Attorney Docket Number	38203-6081B

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
CY		US- 4,757,207	07/1988	Chappelow et al	
		US- 4,861,148	08/1989	Sato et al	
		US- 4,929,083	05/1990	Brunner	
		US- 5,124,927	06/1992	Hopewell et al	
		US- 5,262,257	11/1993	Fukuda et al	
		US- 5,285,236	02/1994	Jain	
		US- 5,438,413	08/1995	Mazor et al	
		US- 5,444,538	08/1995	Pellegrini	
		US- 5,477,058	12/1995	Sato	
		US- 5,700,602	12/1997	Dao et al	
		US- 5,757,507	05/1998	Ausschnitt et al	
		US- 5,805,290	09/1998	Ausschnitt et al	
		US- 5,824,441	10/1998	Farrow et al	
		US- 5,877,861	03/1999	Ausschnitt et al	
		US- 5,953,128	09/1999	Ausschnitt et al	
		US- 6,023,338	02/2000	Bareket	
		US- 6,064,486	05/2000	Chen et al	
CY		US- 6,079,256	06/2000	Bareket	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	6
		Country Code <sup>3</sup> *Number <sup>4</sup> *Kind Code <sup>5</sup> (if known)				

Examiner  
Signature

/Christopher Young/ (06/28/2006)

Date  
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CY		US- 6,130,750	10/2000	Ausschnitt et al	
		US- 6,137,578	10/2000	Ausschnitt	
		US- 6,142,641	11/2000	Cohen et al	
		US- 6,143,621	11/2000	Tzeng et al	
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		US- 6,163,366	12/2000	Okamoto et al	
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		US- 6,218,200	04/2001	Chen et al	
		US- 6,417,929	07/2002	Ausschnitt et al	
		US- 6,737,207	05/2004	Imai	
		US- 4,861,148	08/1989	Sato et al	
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		US- 6,734,971	05/2004	Smith et al	
		US- 6,906,303	06/2005	Smith	
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Art Unit	1756
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Sheet 3 of 8

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Date Considered	06/28/2006
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First Named Inventor	Smith et al
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Attorney Docket Number	38203-6081B

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**NON PATENT LITERATURE DOCUMENTS**

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CY		Armitage et al, Analysis of overlay distortion patterns, SPIE Vol. 921, 207:221, 1988	
		Biesterbos et al., A New Lens for Submicron Lithography and its Consequences for Wafer Stepper Design, SPIE Vol. 633, Optical Microlithography V, 34:43, 1986	
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CY		Goodwin et al., Expanding Capabilities in Existing Fabs with Lithography Tool-Matching, Solid State Technology, 97:106, June 2000	

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Application Number 10/765,223

Filing Date 01/26/2004

First Named Inventor Smith et al

Art Unit 1756

Examiner Name C. Young

Sheet 5

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Attorney Docket Number 38203-6081B

**NON PATENT LITERATURE DOCUMENTS**

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CY		Handbook of Microlithography, Micromachining and Microfabrication, Book: Vol. 1, "Microlithography", Rai-Choudhury, P. (Ed.), SPIE Optical Engineering Press, SPIE, Bellingham, Washington, pp. 417-418 (1997)	
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		Lin, "The Attenuated Phase-Shifting Mask", Solid State Technology, Special Series/Advanced Lithography, 35(1): 43-47 (1992)	
↓		MacMillan et al, "Analysis of Image Field Placement Deviations of a 5X Microlithographic Reduction Lens", SPIE, 334:78-89 (1982)	
CY		Martin et al, Measuring Fab Overlay Programs, SPIE Conference on Metrology, Inspection, and Process Control for Microlithography XIII, 64:71, March 1999	

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Application Number 10/765,223

Filing Date 01/26/2004

First Named Inventor Smith et al

Art Unit 1756

Examiner Name C. Young

Attorney Docket Number 38203-6081B

Sheet 6

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CY		McFadden, C. et al, A Computer Aided Engineering Workstation for Registration Control, SPIE Vol. 1087, 255:266, 1989	
		Mulkens et al., ArF Step and Scan Exposure System for 0.15 Micron and 0.13 Micron Technology Node, SPIE Conference on Optical Microlithography XII, 506:521, March 1999	
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CY		Quaestor Q7, "Fully Automated Optical Metrology System for Advanced IC Production", Quaestor Q7 Product Specification, BIO-RAD 2 pages	
		Raugh, "Error Estimation for Lattice Methods of State Self-Calibration", SPIE, 3050:614-625 1997	
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CY		van den Brink et al., Matching Performance for Multiple Wafer Steppers using an Advanced Metrology Procedure, SPIE Vol. 921, 180:197, 1988	

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		van Schoot, 0.7 NA DUV Step and Scan System for 150nm Imaging with Improved Overlay, SPIE Vol. 3679, 448:463, 1999	
		Yost et al., Lens Matching and Distortion Testing in a Multi-Stepper, Sub-Micron Environment, SPIE Vol. 1087, 233:244, 1989	
		Zavec, Life Beyond Mix-and-Match: Controlling Sub-0.18 Micron Overlay Errors, Semiconductor International, July 2000	
		Zavec, "Machine Models and Registration", SPIE Critical Reviews of Optical Science and Technology, CR52:134-159 (1994)	
CY		Zych et al., Electrical Methods for Precision Stepper Column Optimization, SPIE Vol. 633, 98:105, 1986	

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